



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,903	12/21/2001	Motoki Kato	SONYAK 3.9-157 CIP	5119

530 7590 01/23/2007  
LERNER, DAVID, LITTENBERG,  
KRUMHOLZ & MENTLIK  
600 SOUTH AVENUE WEST  
WESTFIELD, NJ 07090

EXAMINER
----------

DANG, HUNG Q

ART UNIT	PAPER NUMBER
----------	--------------

2621

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/029,903

Applicant(s)

KATO ET AL.

Examiner

Hung Q. Dang

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 10-12 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-12, and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed on 01/03/2007 have been fully considered. But they are not persuasive.

In page 12, the Applicant argues, with respect to amended claims, which now recite "wherein said third AV stream maintains continuity to achieve a seamless playback," Sakai, Lenihan, and Nakatani (alone or in combination) fail to meet all of the recited limitations, and the rejected claims should be allowed.

In response, the Examiner respectfully disagrees. In [0101], Sakai et al. disclose that the apparatus reproduces consecutive cuts from the optical disk in the same manner as in the editing of cuts. In editing, a review, which is a playback, is made by reproduction in accordance with the editing list ([0071]), which describes the order of playback, the start and end times of cuts, as well as the transition periods of the third AV streams ([0060], [0064], [0062], [0065], [0066]). And as shown in Figs. 4 and [0101], Sakai et al. clearly disclose the third AV stream (X1 or X2), which are to implement fade-in and fade-out effects, to maintain the continuity in playback of AV streams a, b, and d (Fig. 4F and Fig. 4G) to achieve seamless playback.

Thus the combination of Sakai et al., Lenihan et al., and Nakatani et al. fully discloses the claimed invention.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2621

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1, 7-8, and 10-12, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Sakai et al. (US PgPub 2003/0012550).

Claim 1 recites an information processing apparatus, comprising (1) a generator operable to generate an AV stream from a first AV stream and a second AV stream to include portions of each of those streams; and to generate relevant address information; (2) a recorder to record the generated AV stream and address information; wherein said third AV stream maintains continuity to achieve a seamless playback.

Sakai et al. anticipate an video editing/recording apparatus, comprising (1) a generator operable to generate a combined AV stream from the first AV stream and second AV stream for only a transition period [0011] using preset portions of the inputted streams (Fig. 4A-4G) and an editing list [0071] including editing points (in-points and out-points) to mark the cuts [0086], which are the address information to the first and second AV streams [0098] (2) a recorder to record the generated combined AV stream and the editing list [0072]; wherein said third AV stream maintains continuity to achieve a seamless playback (Fig. 4F; Fig. 4G; "third AV stream being X1 or X2 maintains continuity of playback of AV streams a, b, and d in Fig. 4G; thus achieve a seamless playback).

Claims 7-8 recite an information generating method and a recording medium having recorded thereon a computer-readable program for generating information, comprising: (1) from a first and a second AV streams, generating a third AV stream including preset portions of the first and second AV streams when reproduction is switched from first AV stream to the second AV stream, and (2) generating address information as pertinent to said third AV stream, said address information including information on addresses of source packets of the first and the second AV stream; wherein said third AV stream maintains continuity to achieve a seamless playback.

Sakai et al. anticipate an information processing method and a recording medium having recorded thereon a computer-readable program for generating information comprising: (1) from a first and a second AV streams, generating a third AV stream including preset portions of the first and second AV streams when reproduction is switched from first AV stream to the second AV stream ([0011], Fig. 4A-4G), and (2) generating address information as pertinent to said third AV stream, said address information including information on addresses of source packets of the first and the second AV stream. ([0071, [0086], [0098]); wherein said third AV stream maintains continuity to achieve a seamless playback (Fig. 4F; Fig. 4G; "third AV stream being X1 or X2 maintains continuity of playback of AV streams a, b, and d in Fig. 4G; thus achieve a seamless playback).

Claims 10-12 recite an information processing apparatus, an information processing method, and a recording medium having recorded thereon a computer-readable program for processing information, comprising: (1) reproducing or a

reproducing unit operable to reproduce a recording medium having recorded thereon a first AV stream, a second AV stream, a third AV stream including preset portions of the first and second AV stream, and address information pertinent to said third AV stream being reproduced when reproduction is switched from said first AV stream to said second AV stream, including address information on addresses of source packets of the first and the second AV streams; (2) controlling or a controller operable to control said reproducing step or unit for switching reproduction from said first AV stream readout-controlled in a first readout controlling step to said third AV stream and from said third AV stream to said second AV stream, based on information pertinent to said third AV stream, readout-controlled in a second readout controlling step; wherein said third AV stream maintains continuity to achieve a seamless playback.

Sakai et al. anticipate an information processing apparatus, an information processing method, and a recording medium having recorded thereon a computer-readable program for processing information, comprising: (1) reproducing or a reproducing unit operable to reproduce a recording medium having recorded thereon a first AV stream, a second AV stream, a third AV stream including preset portions of the first and second AV stream ([0011], Fig. 4A-4G), and address information pertinent to said third AV stream being reproduced when reproduction is switched from said first AV stream to said second AV stream, including address information on addresses of source packets of the first and the second AV streams ([0071], [0086], [0098]); (2) controlling or a controller operable to control said reproducing step or unit for switching reproduction from said first AV stream readout-controlled in a first readout controlling

step to said third AV stream and from said third AV stream to said second AV stream, based on information pertinent to said third AV stream, readout-controlled in a second readout controlling step ([0093]); wherein said third AV stream maintains continuity to achieve a seamless playback (Fig. 4F; Fig. 4G; "third AV stream being X1 or X2 maintains continuity of playback of AV streams a, b, and d in Fig. 4G; thus achieve a seamless playback).

Claim 14 recites a recording medium having recorded thereon address information, comprising: (1) when continuous reproduction from a first AV stream to a second AV stream is commanded, a third AV stream including preset portions of the first and second AV streams and being reproduced when reproduction is switched from said first AV stream to said second AV stream. (2) address information as information pertinent to said third AV stream, including information on addresses of source packets of said first and second AV streams at a time of switching of reproduction from said first AV stream to third AV stream and from third AV stream to said second AV stream; wherein said third AV stream maintains continuity to achieve a seamless playback.

Sakai et al. anticipate a recording medium having recorded thereon address information, comprising: (1) when continuous reproduction from a first AV stream to a second AV stream is commanded, a third AV stream including preset portions of the first and second AV streams and being reproduced when reproduction is switched from said first AV stream to said second AV stream ([0011], [0012], Fig. 4A-4G) (2) address information as information pertinent to said third AV stream, including information on addresses of source packets of said first and second AV streams at a time of switching

of reproduction from said first AV stream to third AV stream and from third AV stream to said second AV stream ( [0071], [0086], [0098], and [0072]); wherein said third AV stream maintains continuity to achieve a seamless playback (Fig. 4F; Fig. 4G; "third AV stream being X1 or X2 maintains continuity of playback of AV streams a, b, and d in Fig. 4G; thus achieve a seamless playback).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai et al. (US PgPub 2003/0012550) as applied to claims 1, and 7-14 above, and further in view of Lenihan et al. (US Patent 6,169,843).

Claim 2 recites the arrival time stamp of the source packet of the first AV stream being continuous with that of a first source packet at the leading end of the third AV stream; and the arrival time stamp of the source packet at the trailing end of the third AV stream being continuous with that of a second source packet of the second AV stream.

Claim 3 recites a sole discontinuous point exists in an arrival time stamp of said second source packet of the third AV stream.

Sakai et al. do not teach arrival time stamp being continuous at link boundary. Sakai et al. also do not teach a sole discontinuous point existing in an arrival time stamp of a source packet of the third AV stream.



Lenihan et al. teach a recording and playback of audio-video transport streams, which in record mode, an arrival time stamp including an arrival time stamp indicating discontinuity within a series of subsequent transport packets (column 11, lines 44-52), is generated for each input transport packet to be recorded (column 9, lines 47-49). When reproduced, the arrival time stamp value from the immediately following transport packet is then loaded into STC as the current time (column 11, lines 55-57).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the method of using arrival time stamps, including the timestamp discontinuity feature, taught by Lenihan et al. into the recording/reproduction apparatus taught by Sakai et al. One of ordinary skill in the art at the time the invention was made would have had a reasonable expectation of combining the use of arrival time stamps, , including the timestamp discontinuity feature, taught by Lenihan et al. and the recording/reproduction apparatus taught by Sakai et al. because, according to Lenihan et al., it permits transport packets to be delivered to a playback device continuously without requiring alteration in the previously stored ATS values (column 11, 58-61).

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai et al. (US PgPub 2003/0012550) and Lenihan et al. (US Patent 6,169,843) as applied to claims 1-3 above, and further in view of Nakatani et al. (US Patent 6,118,924).

Claims 4-6 recite the addresses are determined so that a data portions of AV streams previous and subsequent to the source packets of the first and second AV

streams respectively, and the third AV stream are located in a continuous area of not less than a preset size on a recording medium.

Sakai et al. and Lenihan et al. do not teach the minimum area of continuity on a recording medium.

Nakatani et al. teach the minimum physically continuous extent length required for continuous reproduction of AV data (column 35, Formula 6, Formula 9, Formula 10; column 36, Formula 12).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the requirement on minimum physically continuous area for storing AV data taught by Nakatani et al. into the information processing apparatus with continuous arrival time stamps at link boundary taught by Sakai et al. and Lenihan et al. because, otherwise, the amount of AV data in the buffer could decrease to zero and continuous reproduction would not be guaranteed (column 35, lines 1-7).

Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, absent unexpected results to the contrary.

### ***Conclusion***

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 2621

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is 571-270-1116. The examiner can normally be reached on M-Th:7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hung Dang  
Patent Examiner



THAO Q. TRAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600